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ABSTRACT

A summary of the findings and recommendations of the Citizens' Advisory Committee on Environmental Quality is presented in this report. Specific environmental problems were studied in depth by six subcommittees and reported under the following topics: (1) people and land, (2) energy production and use, (3) pollution abatement, (4) environmental education and citizen responsibility, and (5) priorities and financing. Appended material includes a background of the committee and data on the publication of a committee guide entitled "Community Action for Environmental Quality." (BL)

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Citizens' Advisory Committee
on
ENVIRONMENTAL QUALITY

Report to The President and to The Council on Environmental Quality

APRIL 1971

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THE CITIZENS' ADVISORY COMMITTEE
ON ENVIRONMENTAL QUALITY

ESTABLISHED BY THE PRESIDENT UNDER EXECUTIVE ORDER 11472 MAY 29, 1969

1700 PENNSYLVANIA AVENUE, N.W. WASHINGTON, D.C. 20006 (202)223-3040

April 9, 1971

Dear Mr. President and Members of the Council on Environmental Quality:

It is with pleasure that the Citizens' Advisory Committee on Environmental Quality submits this report.

In preparing it, the Committee has kept in mind several basic propositions. They are:

-- That success will depend not on government and industry alone, but will require citizen understanding, support, and participation.

-- That much more can be done with each environmental dollar. Increased financing is indeed necessary, and we have so recommended. But we also believe that there are many important steps to be taken for which the chief requirement is not money, but energy and imagination -- joint industry-government programs, for example, and more effective enforcement of existing regulations.

-- That the primary role of this Committee is to make constructive proposals for action, and to emphasize fresh and innovative approaches. To this end we have set up six subcommittees and charged each with the responsibility of making a depth study of specific environmental problems. This report summarizes their findings and the recommendations adopted. While not all members necessarily endorse each specific detail, there is a broad consensus on the report.

We look forward to your continued leadership and stand ready to help in any way we can.

Sincerely,

Laurance S. Rockefeller

Laurance S. Rockefeller
Chairman

Whether or not we achieve the quality of life we all want will depend finally upon what happens in the local community. Here is where the big job must be done. Here is where rhetoric is meaningless and only deeds count. The great groundswell of interest and concern in the towns and cities all over the country is most heartening. People have demonstrated that they want action—immediate, tangible action where they live. They expect government and industry to work with them, to help. And if government, industry and the people work together, there can be no question about the outcome.

Laurance S. Rockefeller

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PEOPLE
AND
LAND

Of all the factors that determine the quality of our environment, the most fundamental is the use we make of our land. Most of the environmental problems we face today stem from misuse of the land. This misuse has been rationalized over the years on two shortsighted premises—that our supply of land was limitless and that while an individual's use of his land might be unfortunate, it was his right and of no concern to the community. Today we know differently. We know that the way each acre of land is used is of concern to the community and, ultimately, to the Nation and to the world.

Land Use Planning

"Throughout the Nation," the President has declared, "there is a critical need for more effective land use planning, and for better controls over use of the land and the living systems that depend on it . . . I believe we must work toward development of a National Land Use Policy to be carried out by an effective partnership of Federal, State, and local governments together, and, where appropriate, with new regional institutional arrangements."

Land use planning and control has traditionally been a local and, to a lesser degree, a State responsibility. It now should be recognized as a Federal responsibility as well.

First, no part of the Nation is an isolated enclave where use of the land has no effect upon other areas. On the contrary, the use

of land in a large metropolitan area has an effect upon rural areas hundreds of miles away in other States. Second, national environmental standards are needed to place the States on an equal basis and prevent unfair "pirating" of industry to areas of less strict control. Third, with increasing Federal funds going to States and cities for environmental programs, the Federal Government has a responsibility for assuring that these funds are spent wisely and in accordance with well-conceived land use plans. Through the setting of standards and the making of grants, the Federal Government can exert significant pressure for improving local and State planning. The point is not to pre-empt State and local action; it is to invigorate it.

Until recently, Federal land use planning has been concerned chiefly with the large open spaces in the undeveloped parts of the country. The Public Land Law Review Commission invested five years in an investigation of the one-third of the United States owned and controlled by the Federal Government; legislative proposals will be forthcoming, embracing all or part of the resulting recommendations. A great deal of thought and research have gone into this category of land.

We believe urban land is the critical problem. Important as the large open areas may be, it is in the urban areas that the great bulk of Americans live, and they live nowhere near so well as they can and should. We find it encouraging that the Administration's legislative proposals for land use planning emphasize these urban needs.

There are many tough questions to be resolved. In what areas should residential and industrial growth be encouraged? In what areas should it be discouraged? What system of compensation should there be to insure that the cost of environmental conservation for the good of the many will not fall inequitably on the few? Why, we wonder, have so many "model cities" been fully planned over the years—cities that would provide an excellent living environment—and so few actually materialize? What can be done to bring more of such projects into being and make them work?

A major move to grapple with such questions is the recent enactment of Title VII of the National Housing and Urban Development Act of 1970. In it the Congress declares that "the Federal Government, consistent with the responsibilities of State and local government and the private sector, must assume re-

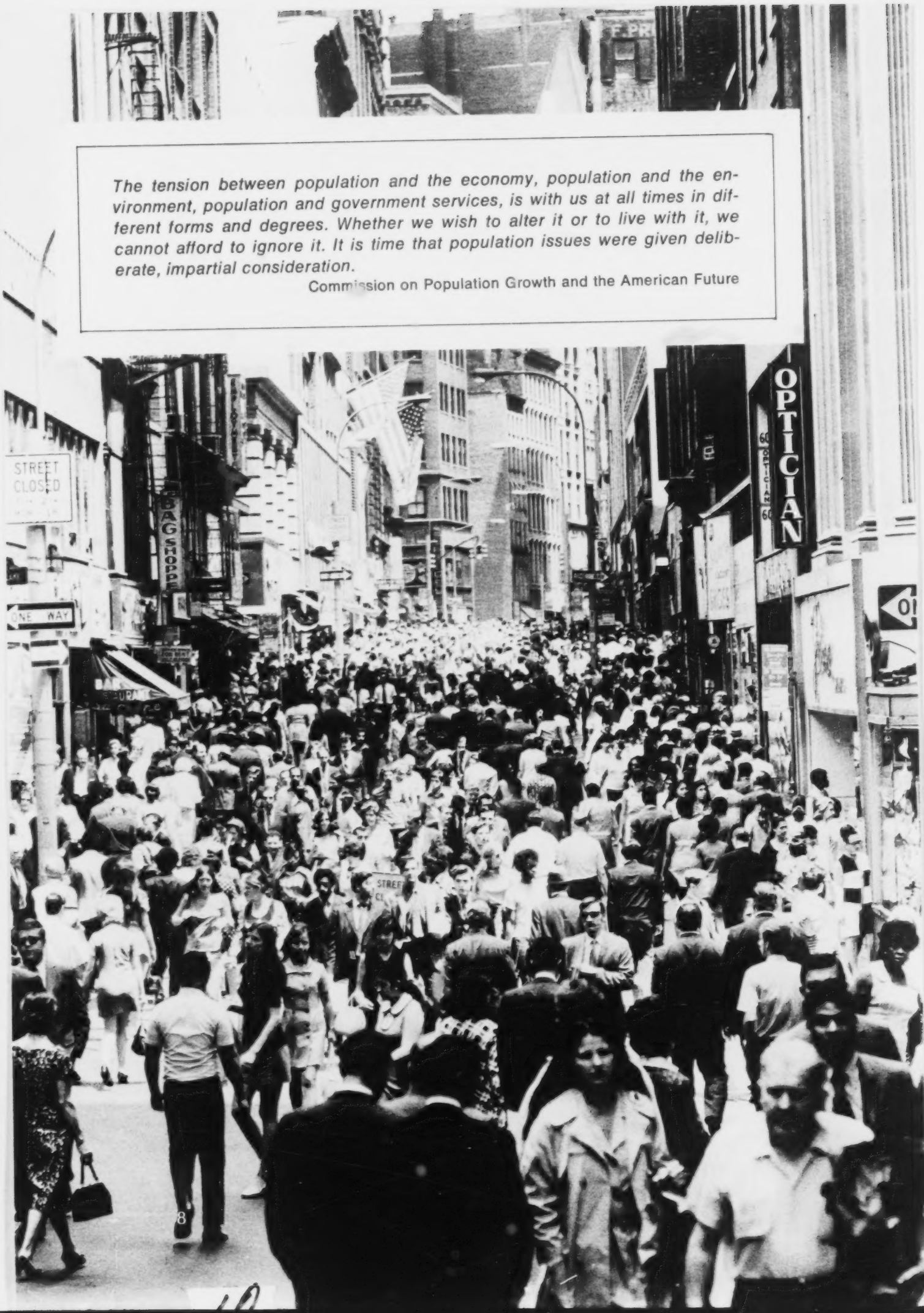
sponsibility for the development of a national urban growth policy which shall incorporate social, economic, and other appropriate factors. Such policy shall serve as a guide in making specific decisions at the national level which affect the pattern of urban growth and shall provide a framework for development of interstate, State, and local growth and stabilization policy."

The Act establishes guidelines for a national urban growth policy, calls for a biennial Report on Urban Growth, and authorizes financial and technical assistance to private developers and State and local public agencies "for encouraging the orderly development of well-planned, diversified, and economically sound new communities, including major additions to existing communities . . ."

It also calls for stronger State and regional planning. Through expanded "701" planning incentives, the Secretary of Housing and Urban Development will encourage State and regional efforts to shape future growth patterns. While the language of Title VII is broad enough to encompass more than urban areas, it does not appear to cover the entire land spectrum encompassed by the bill (S.3354) reported by the Senate Committee on Interior and Insular Affairs in the 91st Congress or by the recently submitted Administration bill to encourage effective land use by the States. The Committee recommends that any additional legislation in this field be closely coordinated with the provisions of Title VII.

Title VII vests responsibility for Federal review of land use planning in the Secretary of Housing and Urban Development. S.3354 would place it in a Land and Water Resources Council made up of various agency representatives. The Administration bill would give major authority to the Secretary of the Interior. It is the Committee's view that the Federal interest in land use planning and policy encompasses several departments and agencies, under either the existing Executive Branch organization or that proposed by the President. We believe, therefore, that the coordination of land use policy could be most effectively exercised by a unit in the Executive Office of the President.

The Committee strongly supports the President's proposal to establish a Department of Natural Resources. We believe it would substantially improve the effectiveness of government and contribute to better land use planning and control.



The tension between population and the economy, population and the environment, population and government services, is with us at all times in different forms and degrees. Whether we wish to alter it or to live with it, we cannot afford to ignore it. It is time that population issues were given deliberate, impartial consideration.

Commission on Population Growth and the American Future

Population Growth and Distribution

Population growth affords no grounds for complacency. Because the birth rate has been generally declining since 1957, some people deprecate it as a problem. Lately, there has been comment in the press to the effect that population growth, after all, is only one of many factors contributing to environmental pollution. This is true enough. But population growth is no less critical for that. Because of the births that have already taken place, the momentum is such that the growth is bound to continue for several decades. Even if the birth rate were to drop to the stabilization rate of 2.1 children per family—which is not likely to happen—the Nation's population could increase by 100 million in the next 50 years.

Fairfield Osborn described the dilemma in these words:

> **Are we not running such a busy race for food, space, and employment for even greater numbers, that we are forgetting the purpose of it all—a better living for human beings? What is humanitarianism? Is it trying to disperse and feed more people, or is its objective a better quality of living for each individual and mankind as a whole?**

In recognition of the serious implications of population growth, the President proposed and the Congress approved legislation to authorize a Commission on Population Growth and the American Future. Because of the close relationship between population and the environment, we are keeping in touch with the work of that Commission.

Distribution of the population is as serious a problem as its growth. The transformation of the United States from a rural to a predominantly urban nation in the last half century has been a major cause of many of our environmental problems. A more balanced distribution of the population should be one of the goals of our land use programs.

New approaches are needed. Urban renewal as carried out during the last 20 years has not provided a better environment for the people. "Slum clearance" projects usually have been

people-routing projects, directed toward salvaging potentially valuable, tax-producing construction sites. People have been the pawns; too often they have been scattered forcibly to any available shelter or transferred from horizontal slums into vertical ones.

The Model Cities program has brought about some improvement, but it is still in the experimental stage.

An approach which holds great promise is the creation of new towns. The British have had considerable success with these new towns, and there is a growing tide of support in the United States for a comparable effort here.

In Title VII of the Housing and Urban Development Act of 1970, Congress authorized a $500 million program to develop new towns. The term is generally interpreted to include both completely new communities, such as Reston, Virginia, and Columbia, Maryland, and the rebuilding of part of an existing community, or new-towns-in-town.

The Committee believes that a soundly conceived new town program can help achieve a better population distribution in the United States. Such a program, however, would require many changes in conventional practices—in zoning, for example, and in property taxation. There is also a monumental problem involved in assuring that sufficient industry will be built into the "new towns" to make them economically viable.

The Subcommittee on Land Use Planning and Population Distribution is currently reviewing approaches being advanced in this country, as well as the experience of foreign countries, and expects to make recommendations.

In the interim, the Committee makes two recommendations: first, that no new community be initiated without adequate provision for public control of land use; and second, that priority be given to new towns within or close to the inner cities. The need for rehabilitation is urgent; and many of the necessary urban facilities are already in place and can be extended if required. They would not have to be constructed from scratch. In its consideration of new towns, the concern of this Committee is improving the **quality of life**—not only developing our recreational potential and abating pollution and preserving the landscape, but enhancing the whole living environment.

. . . Overspill invades the countryside in direct proportion to the demoralization within the city. To save the hinterland, we must save the city.

Harry M. Weese

Use of Federal Lands

The use of Federal lands is currently the subject of extensive discussion throughout the Nation. In its recent report, **One Third of the Nation's Land,** the Public Land Law Review Commission made far-reaching recommendations concerning the use of the vast acreage of Federal lands. During 1970 the Senate Committee on Interior and Insular Affairs held extensive hearings on land use planning and, late in the year, reported favorably on a bill (S.3354) which, if enacted, would have been the Land and Water Resources Planning Act. The Council on Environmental Quality has studied the subject extensively, and the Administration has recently proposed legislation to encourage effective land use by the States.

The Committee strongly supports the proposal made by the President in his Environmental Message of February 10, 1970, that "we adopt a new philosophy for the use of Federally-owned lands, treating them as a precious resource—like money itself—which should be made to serve the highest possible public good."

The Committee also agrees with the emphasis placed by the President on identifying Federal properties that could appropriately be converted to parks and recreation areas. The Committee inspected the existing and former military installations on both sides of the Golden Gate in California, which have been proposed in legislation for inclusion in a Golden Gate National Recreation Area. The Committee recommends that those areas on both sides of the Golden Gate not needed specifically for military purposes be incorporated in such an area.

Since park lands owned by the State of California and the City of San Francisco are intermingled with these Federal lands, there is an excellent opportunity for joint Federal-State-local administration of a National Recreation Area. The Committee has recommended this type of administration as a means of providing all of the people concerned with the area a voice in its management.

The recent enactment of Public Law 91-485 makes it possible for States and local governments to obtain Federal surplus prop-

erty for park and recreation purposes at no cost. The Committee urges that full use be made of this new law, in urban areas especially.

Land and Water Conservation Fund

To strengthen the recreation grant program financed by the Land and Water Conservation Fund, the President requested full funding for the program in fiscal year 1971, and the Congress so provided. Congress also enacted legislation in 1970 increasing the input to the Fund from $200 million to $300 million per year. The President has again requested full funding under the expanded authorization for 1972, and we urge the Congress to appropriate the budget request.

Two thirds of the $177 million appropriated for the States in 1971 was apportioned on the basis of population residing in metropolitan areas of 250,000 or more. This is an important step toward meeting the recreation needs of the larger cities, and we recommend that this emphasis be continued. The Administration's proposed amendments to the Land and Water Conservation Fund Act would direct more of the Fund monies to urban areas. We endorse these amendments and recommend two additional ones.

First, we concur in the recommendation of the Public Land Law Review Commission that the Act be amended to permit use of the Fund for development of needed recreational facilities on Federal lands.

Second, we recommend an amendment permitting States and cities to use some Fund money for operation and maintenance of recreation areas. At present, States and cities can get money only for acquisition and development. Many cities, however, do not have the money to adequately staff or maintain the recreation areas they already have. Federal aid for these purposes could provide additional recreation opportunities in these areas more quickly than further acquisition or development.

Islands

The unique recreation characteristics of American islands have until recently been almost completely overlooked. In August 1970, however, the Bureau of Outdoor Recreation published a report, **Islands of America,** which brings the previously scattered knowledge of our islands into focus. The report finds that many undeveloped islands are endangered by unwise development and identifies a variety of conservation opportunities for governmental and private action. It proposes a National System of Island Trusts to be administered by commissions comprised of Federal, State, and local representatives. The Committee recommends that these proposals be adopted as elements of a national land use policy.

Highways and Public Transportation

The 1965 highway beautification legislation, authorizing landscaping and control of outdoor advertising and automobile junkyards, is not being funded or implemented. This is most unfortunate. It is also illogical. Congress found that the scenic enhancement part of the program has been working well. Because the billboard part had not, however, it discontinued appropriations for both and decided to study the matter instead. In the Federal Aid Highway Act of 1970 (P. L. 91-605), Congress established a Commission on Highway Beautification to study and review the existing law, policies, and practices related to control of outdoor advertising and junkyards, as well as sources of financing, including possible use of the Highway Trust Fund. The Committee believes that the Highway Trust Fund should be used for highway beautification.

The Administration has indicated in its recent proposal for revenue sharing in the transportation field the desire to give more Trust Fund aid free of strings. We commend the idea of open-

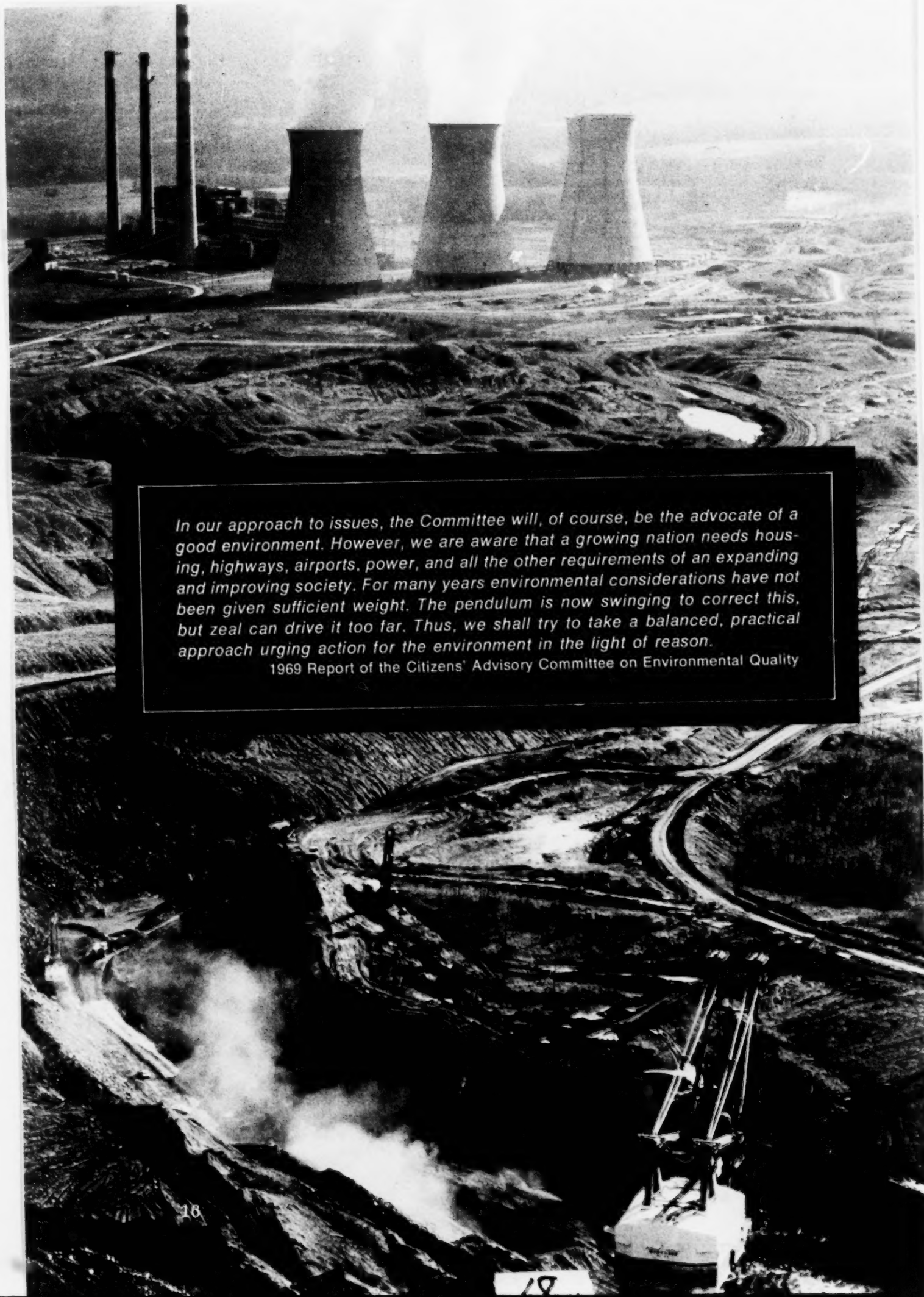
ing the Highway Trust Fund for purposes other than highway construction. We urge that an adequate share of these Trust Fund monies be devoted to the protection and beautification of rights of way.

We also believe the Fund should be used to develop needed public transportation. For the last two decades the emphasis has been almost entirely on highway building, with cities being given highways they did not want or need, instead of money for public transit they did. We are pleased to note, therefore, that the Administration proposal for revenue sharing would permit a State, at its option, to use a portion of its money from the Highway Trust Fund for public transportation systems.

Environmental Impact Statements

The National Environmental Policy Act requires that all Federal agencies include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the environment, a detailed statement on the environmental impact of the proposed action. The response of the Federal agencies to this requirement has unfortunately been spotty.

We urge full and timely disclosure of environmental impact statements. The revised guidelines proposed by the Council on Environmental Quality should help agencies fulfill their obligations.



In our approach to issues, the Committee will, of course, be the advocate of a good environment. However, we are aware that a growing nation needs housing, highways, airports, power, and all the other requirements of an expanding and improving society. For many years environmental considerations have not been given sufficient weight. The pendulum is now swinging to correct this, but zeal can drive it too far. Thus, we shall try to take a balanced, practical approach urging action for the environment in the light of reason.

1969 Report of the Citizens' Advisory Committee on Environmental Quality

ENERGY
PRODUCTION AND USE

Energy, from whatever source and in whatever form, is essential to the quality of our life. Coal, oil, natural gas, uranium, and falling water provide directly, or through conversion to electricity, the energy without which we would not have the heat, light, transport, and industrial production we take for granted. Yet, the production of energy—at the mineral extraction stage at the point of conversion, and in the process of distribution or delivery—causes significant damage to our environment in such forms as strip mining, air pollution, overhead transmission lines, and oil spills. The public objects to the damage, and often it objects even to the construction of essential new facilities. The public also objects, however, when the energy is not delivered and when a shortage of fuel or power adversely affects public necessities or conveniences.

The problems are compounding. There is a limited supply of resources to produce energy, but a rapidly accelerating demand. Not only is the population growing, there is a growing per-capita use of energy—more appliances, more automobiles, and more industrial and commercial consumption. If present trends do not change, a recent study suggests, by 1980 there is likely to be an increase of about 50 percent in the United States energy requirements; by 2000, 300 percent.

The objective should be to assure that necessary energy will be produced with the best technology available and with minimum damage to the environment, but without unnecessary delay. There must be a proper balance between our needs for energy and our concern for environmental protection.

Increased concern in recent years for environmental quality was much needed and has been welcomed by all responsible citizens. It has made people aware of many serious problems and has led to the start of numerous corrective programs and the acceleration of others. In some instances, however, there has

been a tendency to exaggerate this concern at the expense of urgent social and economic needs. This has resulted in prolonged delay or complete stoppage of projects that had long been planned to meet urgent needs. We believe this is shortsighted.

Research, Development, and Planning

The need for additional research and development is clear. The internal combustion engine and thermal electric generator, even in their most advanced versions, are relatively inefficient. For environmental quality as well as economics, more efficient processes are vital.

The Committee recommends that the Federal Government promote increased research and development on more efficient and relatively pollution-free energy processes. In the electrical field these would include breeder reactors, magneto-hydrodynamics, the reduction of waste heat, improved means of transmission, and in the future, controlled fusion and solar energy—both practically unlimited sources.

The investment of Federal funds in research and development work for which sufficient industry financing cannot reasonably be expected, would be a relatively low-cost/high-benefit expenditure. Tax incentives to increase industry investment in research and development should also be considered.

The construction of new energy facilities, as well as new industries or services that consume large quantities of energy, should be subject to particularly careful planning. The Energy Policy Staff of the Office of Science and Technology made certain recommendations, and the President subsequently incorporated them in his Environmental Message of February 8, 1971. The Committee believes it important that they be implemented. They include: long-range planning for essential facilities on a regional basis; participation in the planning by environmental protection agencies, with adequate opportunity for public comment; preconstruction review and approval of all new, large power fa-

Many environmentalists were in the past properly critical of industry for the lack of opportunity to contribute expertise to industry's decisions. While I regret there has been no widespread invitation extended to the conservation interests to engage in such a joint undertaking, I believe that the suspicions and arm's length relationship must be overcome by both of these interests. Industry has much to gain through a close and collaborative working relationship with the environmentalists and such an effort could accelerate much-needed solutions.

Lelan F. Sillin, Jr.

cilities by an appropriate public agency; an expanded research and development program for better pollution controls, underground high voltage transmission, improved generation techniques, and advance siting approaches.

Legislation to implement these recommendations has been submitted to the Congress by the Administration. The legislation is also intended to achieve the important objective of consolidating at one decision-making point the numerous approvals now required at State and local levels. The Committee urges enactment of this legislation.

With respect to the problem of coastal siting of power plants, the Committee urges that consideration be given to undergrounding coastal plants; siting on islands, natural and fabricated; siting offshore under water; siting inland and using reclaimed waste water rather than ocean water for cooling; and siting inland and transporting ocean water for cooling.

Supply and Demand

The supply of energy resources is far more limited than our profligate use of it would suggest. "If we were to bring all the people in the world up to our standard of energy use," Secretary of Interior Rogers C. B. Morton has pointed out, "the known energy sources that exist in the world today would last only about 20 years."

The projected United States demand for energy could change. Individual and corporate needs, government regulations, and the efficiency of energy use could vary substantially in the future, and change could be deliberately induced by public policy.

The report **Electric Power and the Environment,** sponsored by the Office of Science and Technology, states:

> **The relative costs and benefits of present policies as contrasted with a policy of discouraging growth in energy use should be carefully evaluated. It may well be timely to re-examine all of the basic factors that shape**

the present rapid rate of energy growth in the light of our resource base and the impact of growth on the environment.

The Committee believes that such a re-examination is an urgent priority and recommends that the Domestic Council sponsor such a study. What is needed is a comprehensive assessment of the long-range outlook for energy in general, for the purpose of arriving at a broad national policy to guide the future development of the energy industries along lines consistent with society's overall needs and nature's overall limitations. The review must consider both the environmental and economic implications of alternative public policies for energy.

The Committee supports improvement of urban public transportation as a more efficient user of energy and urban land than the private automobile. Better coordination of rail and highway transport, such as the greater use of piggyback trailers, could provide energy savings, as well as relieve traffic congestion.

Citizens can help slow the demand for energy by wasting less. The cost to the consumer of electricity, gas, and heating oil has generally been such a small part of his budget or his rent that he has thought of it like water—as being available for the user without cost. Lights are left on, thermostats left up at night, and engines left running. The cumulative effect of such waste by more than 200 million people is substantial.

The Committee recommends that the Environmental Protection Agency with the advice of the Office of Consumer Affairs, launch a public education program for reducing energy waste.

Radiation Standards

One of the most controversial of environmental questions concerns the radiation standards applicable to nuclear power generating installations. The substantial disagreement that has arisen among scientists has attracted extensive national publicity. The layman is understandably disturbed; he has no basis on which to form his own

judgment but is well aware that over-exposure to radiation has damaging effects on people.

In December 1970, the responsibility of the Atomic Energy Commission for setting radiation standards and all functions of the Federal Radiation Council were transferred by the President's Reorganization Plan No. 3 to the new Environmental Protection Agency.

The National Academy of Sciences is now making a thorough study of radiation standards for the Administrator of the Environmental Protection Agency. We urge that special attention be given to the problem of radiation hazard that might result from earthquake damage to a nuclear plant. After reviewing the National Academy study and before making a decision, the Administrator should publish proposed standards and assure that scientists and citizens on both sides of the issue are given ample opportunity to express their views. Once the decision is made, the Administrator should take special measures to insure that the public understands the reasoning. This will be a critical example of the importance of citizen understanding to a government program.

We have set up a subcommittee to study the issues and problems of energy production and use and hope to develop further recommendations for a much-needed national energy policy.

POLLUTION ABATEMENT

The Committee commends the increased support for water pollution control by the Administration. As the fiscal situation permits, the Committee feels that a must priority for the Nation is comparable attention to Federal air and solid waste management programs. In making recommendations, however, we have kept in mind the need for practicality and for low-cost/high-benefit action. We also believe that some environmental programs already under way can be made considerably more effective per dollar of cost.

Solid Waste

The problem of solid waste recycling and disposal is exceedingly complex. To be sure, its solution will require an increase in the relatively small funds now devoted to technological innovation. But it will also require changes in tax policy, freight rates, market patterns, and consumer attitudes which presently favor the use of virgin rather than recycled materials.

As soon as the fiscal climate permits, we believe that full implementation of the Resource Recovery Act of 1970 will accelerate progress in research and demonstration projects necessary to obtain the requisite technology in this field. Expenditures for advanced technology will help cut down much greater expenditures for potentially obsolete facilities.

The Federal Government should also support efforts by private industry and citizens to deal with solid waste recycling problems. Examples include the efforts of bottlers, brewers, soft drink

. . . Only within the moment of time represented by the present century has one species—man—acquired significant power to alter the nature of his world. During the past quarter century this power has not only increased to one of disturbing magnitude but it has changed in character. The most alarming of all man's assaults upon the environment is the contamination of air, earth, rivers, and sea with dangerous and even lethal materials.

Rachael Carson

manufacturers, aluminum and paper companies, and various citizen groups in recycling of newspapers, containers for certain beverages, and other products. Both State and municipal attention to such recycling problems would be in order, too, as would their enactment and strict enforcement of anti-litter laws.

About 85 percent of the refuse collected in the country is simply dumped in open areas and burned periodically, if at all; only 5 percent is channeled into sanitary land fills. It should be public policy that all open dumps be converted to sanitary land fills and that open burning near urban areas cease. New York State has recently established such a goal. Other States should follow suit.

We welcome the Bureau of Solid Waste Management's "Operation 5000," aimed at eliminating 5,000 of the some 14,000 open dumps, in the next six months.

There should be Federal legislation, as proposed by the Administration, to prohibit the dumping of solid and other wastes in the ocean, except as authorized by the Environmental Protection Agency.

The Committee endorses the legislative proposals concerning junk-car disposal contained in the first report of the National Industrial Pollution Control Council. These proposals include local and State ordinances and legislation to expedite title clearance and to prohibit and control the accumulation of junk cars. The States should adopt as a model the junk-car legislation recommended in 1967 by a committee of the Council of State Governments.

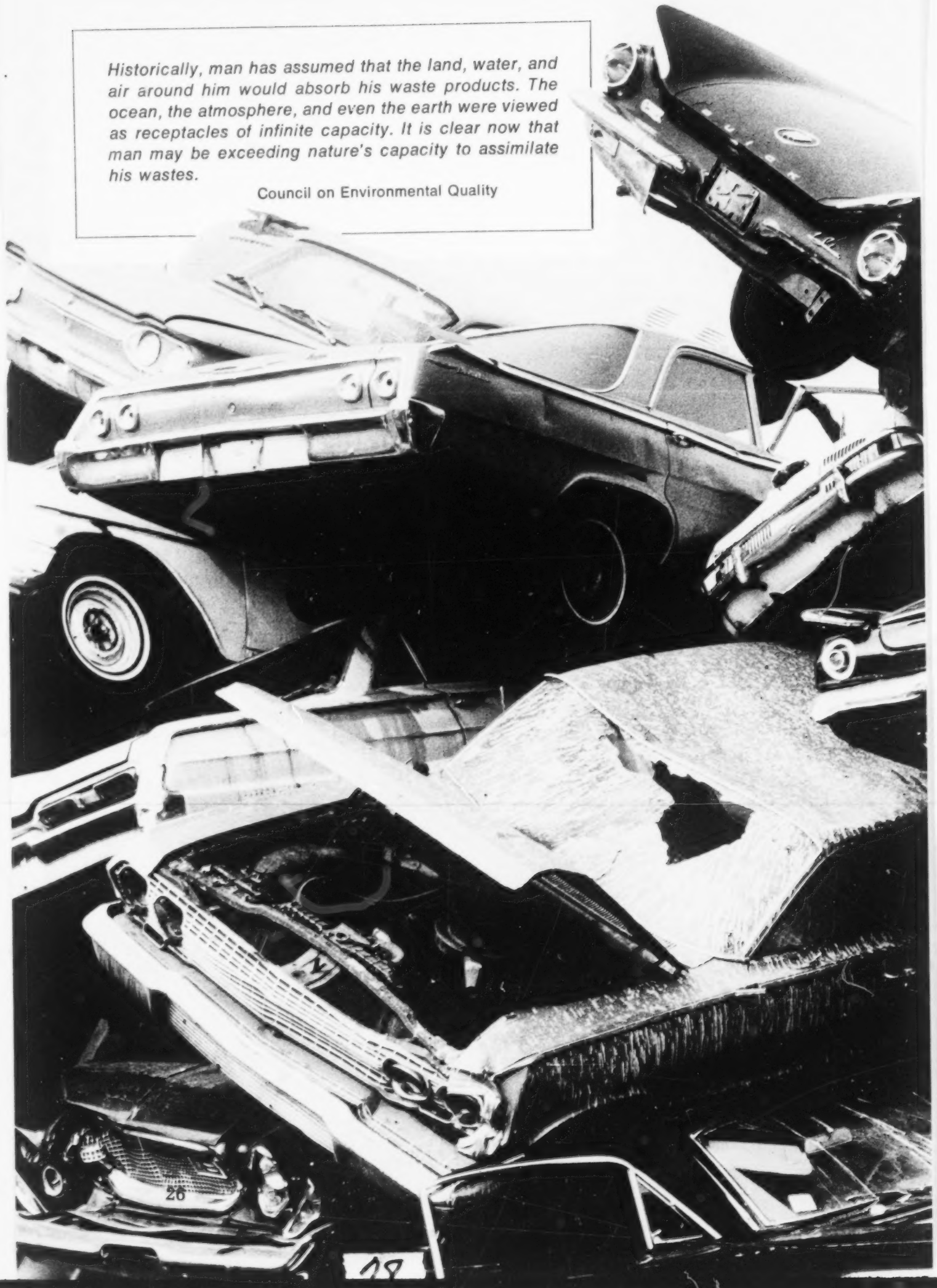
Air Pollution

The Committee urges full implementation of the Federal air pollution abatement program as funds become available, up to levels provided under the Clean Air Act of 1970.

More should be done to curb air pollution caused by automobiles. Both industry

Historically, man has assumed that the land, water, and air around him would absorb his waste products. The ocean, the atmosphere, and even the earth were viewed as receptacles of infinite capacity. It is clear now that man may be exceeding nature's capacity to assimilate his wastes.

Council on Environmental Quality



and government should be encouraged to accelerate the pace of research on unconventionally powered automobiles.

A phasing-out, or drastic phasing-down, of lead in gasoline is a necessary step. We support a tax on leaded gasoline. This could be raised step by step over several years, as non-leaded fuels and engines that use them become generally available. The Federal Government has used its procurement policies to stimulate industrial production of unleaded gasoline: State and local governments should do the same. A compulsory but phased program of fitting automobiles with retrofit air pollution control devices over the next few years should also be carried out.

The Committee supports the President's proposal for a Clean Air Emissions Charge on emissions of sulphur oxides. As he has stated, "In terms of damage to human health, vegetation, and property, sulfur oxide emissions cost society billions of dollars annually."

Water Pollution

With certain limited exceptions, tertiary treatment of all waste water (or technologically equivalent treatment producing reusable water) should be adopted as the ultimate goal of the water quality program. At present, there are already 135 tertiary treatment plants in existence or under construction in the United States. An appropriate timetable for the conversion to tertiary treatment should be set.

The technology for processing sewage effluent to drinking water quality is available. At present, the approximate cost of tertiary treatment equals that of primary and secondary combined. Upgrading to tertiary standards would almost double the cost of both capital construction and operations. But tertiary treatment is fast becoming essential, particularly in urban areas.

There is a good potential for recovering some costs through reuse of the effluent for recreational purposes, irrigation, and for drinking water. The tertiary treatment plant at Lake Tahoe, for example, produces water for both a recreation lake and farm

irrigation. At Windhoek, South Africa, a plant supplies 27 percent of the drinking water for a town of 36,000. At Windhoek, where drinking water is scarce and expensive, projections showed that sewage purification would be less costly than other sources of supply. Costs must be viewed in the context of alternatives.

It is also important that the States be urged to bring their water quality standards up to the level of Federal requirements. They should adopt regional and river basin programs for their waste, rather than continue on a fragmented, sewage district-by-sewage district basis. If they do not, there will be no comprehensive water pollution abatement—one State's negligence being capable of offsetting another's diligence on a shared river. The same is true for intra-State and local sewage treatment systems: Regional planning, sharing of sewage system treatment facilities, even centralized plants, will be required if clean water is to be secured at reasonable cost.

Both research and public education are necessary to develop new technology and to stimulate responsible use of our water supplies.

While the Committee has not had the opportunity of studying in detail the Administration's proposed amendment to the Federal Water Pollution Control Act, it supports the effort to strengthen and clarify Federal authority in the establishment and enforcement of water quality standards.

Through Executive Order 11514 of March 5, 1970, the Federal Government has affirmed its intention of setting an example in pollution abatement. The promise is there; what is needed is action. We believe the States should enact similar legislation for enviromental standards. They should also consolidate various pollution abatement programs in one overall environmental protection agency, as New York and New Jersey have done.

The Committee supports the growing use of existing legislation to enforce industrial, even governmental, compliance with Federal water quality standards—specifically, the National Environmental Policy Act of 1969 and the 1899 Refuse Act.

In the implementation of the latter, certain points should be made clear. We believe that any permits issued under the 1899 Act should not be considered long-term licensing of industrial or other pollution, but rather as temporary permits for relatively brief time periods and subject to re-evaluation. Full public dis-

closure of the content of licensed pollutants should be required, in addition to provision of public review and comment on proposed industry effluent standards. The Act's enforcement should be consonant with environmental legislation already enacted, recent court decisions, and State and local land use plans. The regulations issued by the Corps of Engineers in April 1971 appear to cover these points adequately.

Oil tanker accidents have been posing a serious pollution problem. We believe that these accidents and resultant oil spills are avoidable, and that governmental action is necessary to see to this. Specifically, we recommend establishment by the Federal Government of strict regulations and radar navigation standards for the movement of oil tankers in and around United States ports, particularly during poor weather and during the night.

A new river basin approach to sewage disposal was proposed to the National Governor's Conference in February 1970 by a study team of the Committee. It envisioned single ownership through a state-created public corporation of all liquid waste disposal plants and lines. The study team determined through its research that great economies would result—perhaps saving as much as one-third, and whole streams could be purified more effectively. The proposal was published in a booklet entitled: "A New Approach to the Disposal of Liquid Waste."

Noise Pollution

Noise degrades our environment no less than the more tangible pollutants, particularly in our cities, and it is good that the Federal Government is becoming increasingly concerned about it. But much more action is needed at all levels of government. So far, most of the attention has been heavily concentrated on aircraft noise. We agree with the Administration that it should be broadened to include noise caused by vehicles, heavy construction equipment, lawnmowers, snowmobiles, and other mechanical devices.

The Committee intends to formulate additional proposals for noise abatement.

A recurring theme has been a productive friction between private citizens and public agencies. Occasionally, it has been a dedicated official, in the right place at the right time, who has furnished the impetus. Very often, however, private individuals have furnished the original spark, and they have set up a virtually endless succession of special groups and organizations to badger governments to action.

Report of the Outdoor Recreation Resources Review Commission

ENVIRONMENTAL EDUCATION *AND* *CITIZEN RESPONSIBILITY*

Citizen concern over the quality of our environment is not a transitory phenomenon. It was long in coming, is decidedly here to stay, and will grow stronger with the passage of time.

Only a few years ago the word "ecology" was little heard of. As it had been since the turn of the century, environmental quality was the concern of a relatively small number of individuals, and they were interested primarily in the preservation of natural resources. Much was accomplished: the preservation and management of timber, range, and water in the national forests; establishment of national parks, parkways and trails, historic sites and national wildlife refuges.

Citizen Concern

But now there is a greatly broadened interest. The total environment has become the cause, and in this more embracing concept the emphasis is increasingly on the delicate relationship between people and resources. The mass media have grasped the connection and have elevated environment to a prime human interest topic: witness the massive coverage given the proposed Alaskan pipeline, the SST, and mercury contamination in seafood.

The change in public attitudes has been dramatic. A recent poll indicates that Americans now rank pollution as the number

one problem facing their local communities, and favor increasing governmental and citizen action. Indeed, during the last two years, thousands of citizen groups have emerged to lend their efforts to the battle for environmental quality.

But when it gets down to specifics, let it be noted, citizens can be inconsistent. "Popular" attitudes toward electric power and water consumption, for example, have surely complicated the energy and water pollution problems facing this country. The poor response to campaigns for recycling the "returnable" container is another example; still another is the response to local anti-litter laws, that demand little and too often receive inadequate cooperation. The Committee believes that a nationwide education campaign aimed at the reduction of waste of all types would be a valuable contribution to environmental quality.

The best way to spur action by citizens is to involve them in the decision-making processes. We would urge more consumer-oriented organizations like that of The Environmental Defense Fund, and even ad-hoc, single-purpose groups created to challenge public or private action posing a threat to the environment.

Federal Programs

Federal environmental education programs can help greatly. To date, most of the Federal activity has been under the aegis of legislation for Office of Education programs. With the enactment in 1970 of the National Environmental Education Act, a strong new impetus has been added. The Act authorizes grants and contracts to institutions of higher education, State and local educational agencies, regional educational research organizations, and nonprofit public and private agencies such as libraries and museums. Through these grants and contracts, eligible organizations can develop programs, and provide public information, technical assistance, and both pre-service and in-service training for teachers and other public service personnel. Small grants may be awarded to citizen's organizations and volunteer groups for a variety of adult education

programs. To provide a coordinating agency for Federal programs, the Act establishes an Office of Environmental Education in the Office of Education.

We urge full implementation of the Act as soon as feasible. We also urge increased use of Title III funds for pilot environmental education programs, including evaluation of the programs to determine which approaches are worth widespread adoption.

Other Federal programs deserve commendation. The National Park Service of the Interior Department has developed two model environmental education programs, NEED and NESA, aimed at elementary and high school students. The Agriculture Department's Cooperative Extension Service and the Forest Service have initiated a number of environmental education projects. The National Science Foundation has financed several successful environmental curriculum development programs.

The newly authorized Youth Conservation Corps, to be administered by the Departments of Interior and Agriculture, will provide good training and at the same time provide vital manpower for many necessary projects.

Private Efforts

Many environmental education programs are being conducted by conservation groups, citizen organizations, corporations, and by business and professional groups. Time and again groups have formed around a particular environmental issue with the aim of urging the public to action. Consumer education groups, perhaps, constitute the most striking example of this.

Valuable as the private programs have been, however, there have not been enough of them, nor have they been meshed sufficiently with one another. We believe that there ought to be much stronger information campaigns via all media.

How-to information for citizens is too often scattered, over-

The Congress of the United States finds that the deterioration of the quality of the Nation's environment and of its ecological balance poses a serious threat to the strength and vitality of the people of the Nation and is in part due to poor understanding of the Nation's environment and of the need for ecological balance; that presently there do not exist adequate resources for educating and informing citizens in these areas, and that concerted efforts in educating citizens about environmental quality and ecological balance are therefore necessary.

The Environmental Education Act of 1970

lapping, incomplete, and sometimes nonexistent. A good base for an adequate program, we believe, would be a national clearinghouse for environmental information, coupled with a well-advertised outreach mechanism to the people.

During the coming year, the Committee plans to expand its contacts with citizen groups with the dual purpose of encouraging their efforts and obtaining as broad a cross-section as possible of citizen thinking.

Corporations have been enlisting in the environmental cause. Here are some of the ways:

• Participation in joint industry-governmental projects, such as the Commerce Department's advisory National Industrial Pollution Control Council, the Defense Department's Jobs for Veterans program, and the Electric Utility Industry Task Force on Environment set up by the Citizen's Advisory Committee.

• Industrial and business sponsorship of citizen education programs about the environment. A good example is the Xerox Corporation's television series, "Mission: Possible," and their publicizing of the Committee's citizen action guide.

• Industry-wide programs to develop pollution abatement technology, to deal with waste products. The efforts of the American Paper Institute and others, to spur the recycling of paper, newspapers and magazines, are an example.

• Voluntary action taken by business firms, such as programs of oil companies to reduce visual pollution at service stations.

Positive governmental incentives to encourage industrial responsibility include: channeling more funds to spur industrial house-cleaning programs; offering tax incentives; underwriting research and development work in the field of pollution abatement; and eliminating certain legal barriers to large scale cooperative efforts by corporations for cleaning up the environment.

It is obvious that some of the corporate embraces of the environment have been self-serving public relations and little else. To spur a more complete conversion, governmental sanctions must be used also. Enforcement of existing regulations and enactment of new legislation or executive action designed to curb certain corporate practices would be in order, as would imposing penalty taxes or fines on and requiring full disclosure of corporate

practices and products considered detrimental to the environment. User fees, licensing powers, and selective government procurement practices can also exert beneficial leverage.

White House Conference on Land Use

The Committee believes that a White House Conference on Land Use would prove of great value and that it should be held as soon as possible. It would provide an excellent forum for both professional and citizen opinion and could generate strong public interest in more effective use of land. Such a conference could also help the United States prepare for the United Nations Conference on the Environment to be held in Stockholm in 1972.

We are pleased to note that UN Conference planning, which had originally emphasized the environmental problems of developed countries, is now devoting equal attention to the still developing countries. The United States can help these countries with technological guidance—and with guidance on how to avoid some of our own mistakes.

We feel that the United States should do everything it can to make sure that the UN Conference is effective. We stand ready to assist in any way we can.

Environmental Research

On some environmental problems not enough is known for effective action. In too many cases, a problem has been attacked without concern for its relationship with other problems. As a consequence, one kind of pollution may unwittingly be traded off for another; a dam built to solve a water supply problem may create worse problems for the overall ecology.

A group of top level scientists who met on environmental problems reported that:

> **. . . In the process of making judgments we found that critically needed data were fragmentary, contradictory, and in some cases completely unavailable. This was true for all types of data—scientific, technical, economic, industrial, and social. . . .**

They proposed that an institute be set up to tackle such problems.

The President has announced the creation of such a mechanism—the Environmental Institute. It will be supported by both public and private financing, and will conduct both basic and applied research on environmental quality problems.

To supplement the work of the Institute, the Committee suggests increased Federal support of university-based environmental research and demonstration programs. Such action, we feel, would allow the much needed talents of our scientific community—in the past heavily involved in aerospace and defense-related research—to turn their skills to environmental problems.

There is no excuse for the delay and dalliance which have brought us to our current crisis. An environmental ethic is needed. Each of us must begin to realize our own relationship to the environment. Each of us must begin to measure the impact of our own decisions and actions on the quality of air, water, and soil of this nation.

William D. Ruckelshaus

PRIORITIES
AND FINANCING

For all of the programs we have been discussing, the key to effective action is assignment of priorities and provision of funds. To shape our recommendations on this difficult subject we have addressed ourselves to three central questions: (1) Is the share of the Federal Budget allocated to environmental quality consistent with its relative importance? (2) Is the program balance within the environmental area consistent with the needs? (3) What additional environmental measures could be suggested that would involve little or no Federal costs, or which could be financed through new sources of revenue?

Environmental Goals

At the August 1969 meeting of the Environmental Quality Council at San Clemente, California, the President asked the Committee to make recommendations concerning environmental goals that might be set in connection with the celebration in 1976 of the 200th anniversary of the Nation's founding.

In responding, we suggested that planning to meet such goals be in terms of priorities. We urged that environment be raised to a first order national priority along with education, social services, and space, matching what we perceived to be a growing public willingness to support higher appropriations for environmental quality.

Environmental goals should be realistic and tangible, and there should be year-by-year checks of the progress being made. The first annual report of the Council on Environmental Quality pro-

vides the basic information on which such goals can be based. We will work with the Council to further sharpen the definition of these goals.

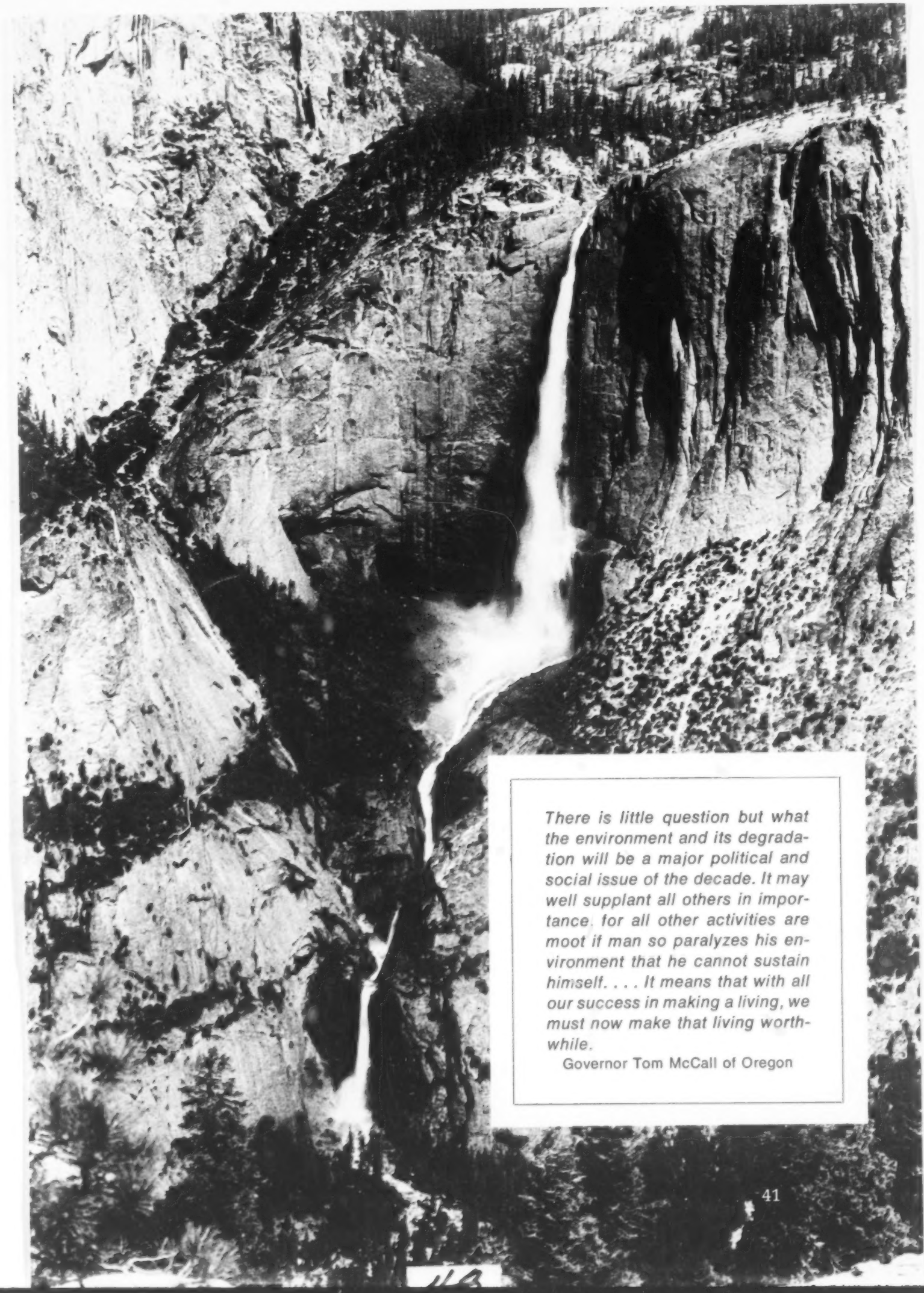
The Federal Program

The President's Environmental Message of February 1971 outlined the most comprehensive program of environmental protection submitted by any President. To implement this program, the Administration is sending to the Congress some sixteen legislative proposals relating to numerous aspects of environmental quality. Several of them have been specifically endorsed in previous sections of this report. The Committee commends the President for submission of this far-reaching program and believes that enactment of these bills should be assigned highest priority.

In recent years, amounts in the Federal Budget for combating water, air, and solid waste pollution have all been increased, and by more than the general level of increase in the Budget over all. Amounts for related programs in areas of conservation, outdoor recreation, and beautification have also been increased.

Indeed, the 1972 Budget calls for an increase of 71 percent over 1971. This is a very significant increase in view of the competing demands upon the Federal Budget and reflects the Administration's strong concern for environmental quality. The Committee recognizes that in view of the continuing need for fiscal austerity, it is not feasible to allocate to environmental programs all the amounts that we believe are needed. The recommendations in this section are made with a view to the future when, hopefully, competing pressures on the Federal Budget will be reduced.

We believe that there are strong arguments for increasing the environmental share of the Budget. One of our members, Charles A. Lindbergh, has effectively expressed the basic concern: "... our environment should receive nothing less than priority-one attention in legislation, appropriations, and public and governmental interest. There is nothing of more basic importance in



There is little question but what the environment and its degradation will be a major political and social issue of the decade. It may well supplant all others in importance, for all other activities are moot if man so paralyzes his environment that he cannot sustain himself. . . . It means that with all our success in making a living, we must now make that living worthwhile.

Governor Tom McCall of Oregon

our security and welfare. In the long run, no social advance or military strength can compensate for a seriously deteriorating environment."

Money spent on environmental programs can save money elsewhere. It can help to reduce overall Federal expenditures by identifying and eliminating unwise projects and expenditures that would be detrimental to the environment. For example, the funds spent on air and water pollution control will reduce sickness and disease and thereby lessen the cost of medical care to which the Federal Government contributes through various health and welfare programs.

Within programs, also, there are imbalances which the Committee hopes can be righted over a period of time. The present distribution of funds among water, air, and solid waste programs does not appear related closely enough to the benefits accruing from the costs involved. For example, both the funds appropriated for fiscal year 1971 and the budget request for 1972 include a much larger amount for water quality than for air quality and solid waste management combined. In part, this may simply reflect the fact that the problem of water pollution came into the public consciousness first. It also, no doubt, reflects the costliness of sewage treatment facilities, say, as opposed to the hardware required for air pollution abatement, and the fact most of the latter must be paid for by the private sector. It is the Committee's feeling, however, that in the future the fundamental questions of need—the relative health hazard, for example—and the urgency of further research and development in the air and solid waste fields should be given more consideration in the allocation of environmental dollars.

The way to right any imbalance is not by reducing support for the water quality program, but by increasing it in the future for the air and solid waste programs. Air pollution, we believe, is our most immediate health hazard and is certainly the least "escapable" form of pollution for the individual citizen. Most of us drink from a safe water supply, but very few of us breathe safe air. Air pollution control, furthermore, involves relatively low costs and for the end results offers the quickest payoff for Federal expenditures. In solid waste management some major costs might be borne by institutions other than the Federal Government, provided that the Government accelerates the application of new technology.

Technology cannot manufacture one square millimeter of soil, one drop of water or one breath of air. But the same brains which constitute the vast organization that puts men on the moon and, still more incredibly, can bring safely back to earth a crippled spaceship, could, given the same priorities and support, clean up the pollution in a decade. We've got to find ways to reduce that 165 million tons of pollutants in the air and to recycle that 360 million tons per year of garbage.

Arthur Godfrey

Low Cost Approaches

Many of the action programs recommended can yield large benefits, yet involve little or no additional Federal expenditures:

- Support of Federal and State regulation, enforcement, and research, with emphasis on air and solid waste pollution.

- Strengthening of the Council on Environmental Quality review procedure under Section 102 of the National Environmental Quality Act of 1970 for Federal agency activities affecting the environment. New legislation and additional funding should be sought if necessary to make the procedure more effective. Careful review of proposed projects can produce outright budget savings. Establishment by States and cities of review procedures analogous to those of Section 102 would produce comparable benefits to environmental quality.

- Encouragement of effective land use planning at all levels of government.

- Increasing attention to the problems of population growth and distribution; and expansion of programs of family planning education, information, and action.

- Stimulation of efforts by private industry.

- Increasing use of Federal Government procurement policies to force compliance with environmental quality standards and programs on the part of sellers of goods and services.

- Conscientious exercise of the Federal licensing power to protect and enhance environmental quality, through such agencies as the Federal Power Commission, Atomic Energy Commission, Corps of Engineers, Forest Service, and Bureau of Land Management.

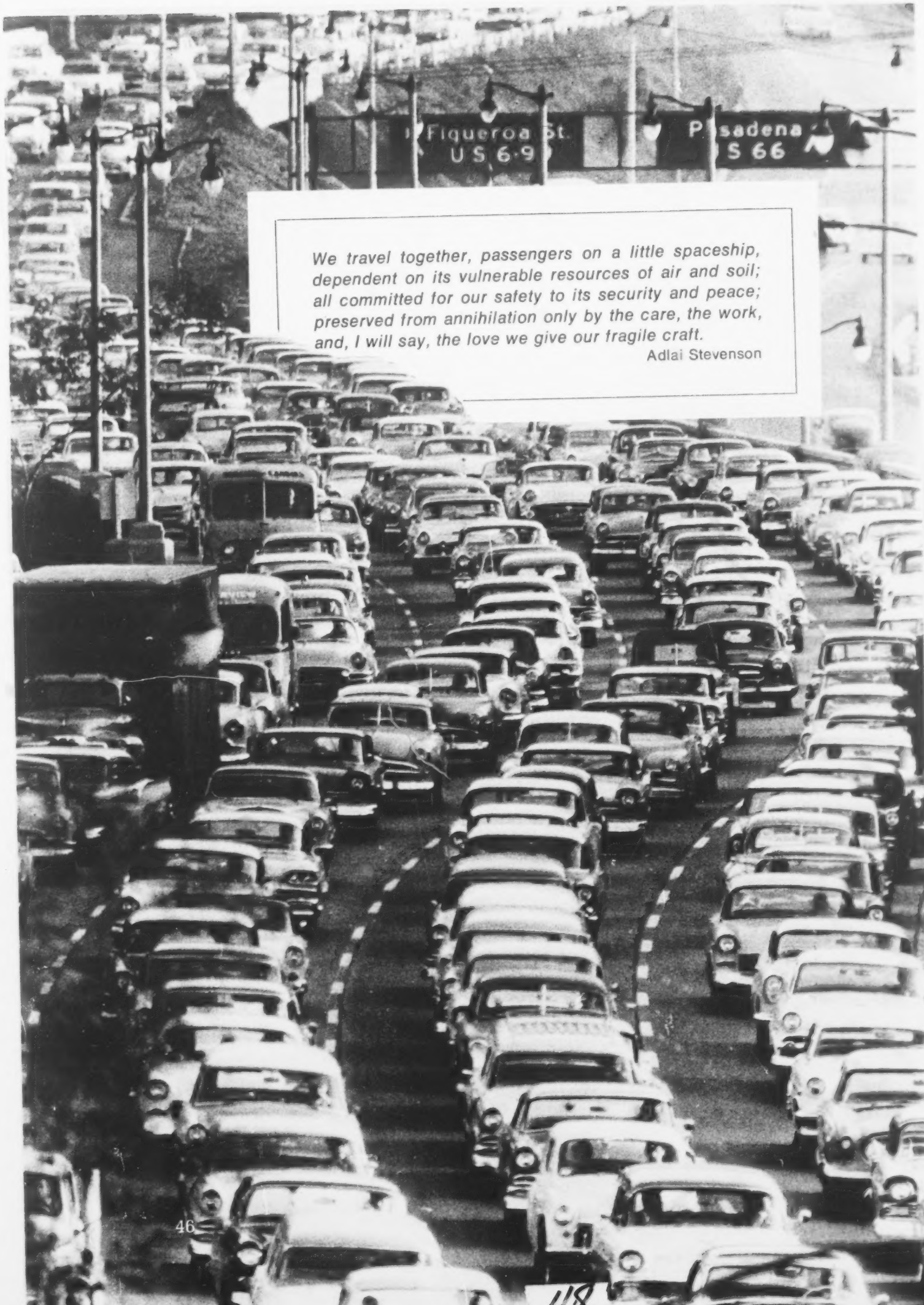
- Application of the currently underutilized portion of the Nation's advanced technology and manpower base—such as the capabilities of the hard hit aerospace industry and the potential of returning veterans—to the problems of air, water, and solid waste management and control.

One of our members, Willard F. Rockwell, Jr. says: "The un-

employment problem among highly trained technical personnel is extremely serious. The use of aerospace skills to cope with the enormous environmental problems besetting this nation is a golden opportunity. Our ecological world is coming apart at the seams, and we're losing the very men who could most efficiently weld it together."

The Federal Government, the States, and industry must give increased attention to remedying some of the economic adjustments which can accompany environmental action. Such action, let it be noted, is only one of many factors; economically the impact of environmental action is usually only marginal, and it is on marginal activities that it tends to fall the most. Whatever the cost of industrial dislocations, however, they can be very painful indeed.

Though cost-benefit ratios can be greatly improved, the Federal commitment to environmental quality will still have to be backed by increasing financing. The cost will be high, but so too will be the benefits—for the Nation's health, for its welfare, and for the quality of its life.



We travel together, passengers on a little spaceship, dependent on its vulnerable resources of air and soil; all committed for our safety to its security and peace; preserved from annihilation only by the care, the work, and, I will say, the love we give our fragile craft.

Adlai Stevenson

APPENDIX A

THE BACKGROUND OF THE CITIZENS' ADVISORY COMMITTEE ON ENVIRONMENTAL QUALITY

The genesis of the current environmental movement can be traced back to the late 1950s. At that time, programs aimed at the conservation of resources had only a remote effect upon people and their everyday environment. Other programs, however, principally involving construction of highways and dams, had a very great effect upon the environment—an effect often adverse and almost always unplanned.

In 1958, a major change in philosophy occurred with the establishment by the Congress and President Eisenhower of the Outdoor Recreation Resources Review Commission. For the first time, the Federal Government was expressing interest in a major facet of the environment—and for the quality of life of its citizens.

The Commission's report of 1962 stressed the need for environmental quality in the everyday lives of people in both urban and rural areas. The report led to enactment of substantial new legislation, including the Bureau of Outdoor Recreation, the Wilderness Act, and the Land and Water Conservation Fund, which has provided over one-half billion dollars for new parks and recreation facilities in all of our States.

In 1965 a White House Conference on Natural Beauty focused increased national attention upon a variety of environmental factors—the townscape, water and air pollution, open space, wild

rivers, highway location and design, undergrounding of utility lines, and numerous others. Many of the States followed up with similar conferences of their own.

The Citizens' Advisory Committee on Recreation and Natural Beauty was established by President Johnson in 1966. It identified key environmental issues, and a number of its recommendations were adopted. But in spite of substantial progress, the Committee felt that environmental considerations were still not being given sufficient weight in the Federal Government. In its 1968 Report it said:

> **Nowhere within the Federal structure is there a clearly defined responsibility for environmental quality control. . . . No single entity within the Federal structure can be counted on to weigh each decision or measure each new program objective against the impact that it will have on the natural environment. Federal programs are still being advanced with very little understanding of their impact upon the environment; some Federal projects are still going forward in full knowledge that they are disruptive or destructive of some element of man's ecology or some irreplaceable value of his environment.**

Soon after taking office in 1969 President Nixon established by Executive Order the Cabinet-level Environmental Quality Council, which he personally chaired, and reconstituted the Citizens' Committee as the Citizens' Advisory Committee on Environmental Quality. The new Citizens' Committee submitted its first report to the President and the Council in August 1969.

On January 1, 1970, President Nixon approved the National Environmental Policy Act which established a three-member Council on Environmental Quality. He appointed Russell E. Train as Chairman, Robert Cahn and Gordon J. MacDonald as members, and abolished the original Environmental Quality Council. The statute provides that the new Council consult with the Citizens' Advisory Committee on Environmental Quality.

Since its August 1969 Report, the Committee has held five meetings in Washington, one in San Francisco. The latter provided an opportunity to obtain firsthand knowledge of environmental problems in a particular region, and we plan to hold some of our future meetings in other parts of the country.

As a means of focusing efforts on specific problem areas and permitting individual members to concentrate on subjects of particular interest to them, the Committee, at its August 1970 meeting, established the following five subcommittees: Land Use Planning and Population Distribution; Water and Air Pollution; Solid Waste Recycling and Disposal; Environmental Education, Ethics, and Ecology; and Priorities and Financing. At the March 1971 meeting another subcommittee was created to deal with the problems of Energy.

Meeting between sessions of the full Committee, the subcommittees review problems in greater depth than is possible with the larger group and prepare reports and recommendations for consideration by the full Committee.

Since publication of the Committee's 1969 Report, President Nixon has appointed the following new members of the Committee:

Henry L. Diamond, Albany, New York
Rene J. Dubos, New York, New York
Jean Fassler, Redwood City, California (reappointed)
Arthur Godfrey, Leesburg, Virginia
A. Wesley Hodge, Seattle, Washington
Charles A. Lindbergh, Connecticut
Governor Tom McCall of Oregon
Willard F. Rockwell, Jr., Pittsburgh, Pennsylvania
Lelan F. Sillin, Jr., Hartford, Connecticut
Thaddeus F. Walkowicz, New York, New York
Pete Wilson, San Diego, California

On August 1, 1970, Lawrence N. Stevens, formerly Associate Director of the Bureau of Outdoor Recreation in the Department of the Interior, became Executive Director of the Committee. At the same time Miss Linda K. Lee became Counsel to the Committee. In December 1970, Noel W. Beyle was appointed Assistant Director.

In early 1970 the Committee published a report entitled "A New Approach to the Disposal of Liquid Waste."

The Committee's other recent publication is the subject of Appendix B of this report.

. . . Everyone may be "for" a good environment. But when we get down to cases the choices become harder. Special interests will be threatened whether they be the interests of business, labor, or the average citizen in his role as consumer and landowner. But the benefits will be enormous.

Russell E. Train

APPENDIX B

THE COMMITTEE GUIDE TO CITIZEN PARTICIPATION

To stimulate citizen action the Committee has published a guide entitled "Community Action for Environmental Quality." It is rifled at the citizen who wants to **do** something to make his community a better place in which to live. It describes the principal approaches to local action—how each works, how they can work together. It tells which organizations, agencies, and Federal and State programs can provide further help, and includes a bibliography of useful publications.

Its impact has been substantial. Since April 1970, 131,000 copies have been printed. Its distribution has involved a broad range of American institutions.

Upon receipt of the first copy, President Nixon wrote Chairman Rockefeller:

> **. . . It is an impressive document, and I believe it can be a very valuable tool for the growing number of our citizens who want to do something about their environment . . .**

The White House made 14,500 copies of the guide available to public and citizen leaders across the Nation, the news media, and others.

The Committee sent copies to members of Congress and to various State and local public officials, with the assistance of the National Association of Counties, the National League of Cities,

. . . Environmental degradation in all its forms is everybody's business; its control will require a massive mobilization of public, administrative, and scientific concern.

Rene J. Dubos

and the United States Conference of Mayors. This distribution led to numerous requests for additional copies by legislators, officials, and citizens.

It also led to republication of the guide by several State and local groups. In the State of Washington, for example, the League of Women Voters and the Office of the Governor developed a modified version of the guide for a series of citizen training seminars.

The Committee, with the assistance of the American Conservation Association in New York City and the Bureau of Outdoor Recreation in the Department of the Interior in Washington, D. C., has also been responsible for filling numerous unsolicited but daily requests—single copies for individual citizens and bulk orders for groups and organizations.

Several Federal agencies have submitted large orders for the guide. Various units in the legislative branch have also requested large quantities of the guidebooks—in particular, the Legislative Reference Service of the Library of Congress, plus several House and Senate committees and subcommittees. Numerous State and local officials have requested multiple orders, too.

But perhaps the most varied response to the guide has come from concerned individuals and private organizations. A partial listing includes: women's and garden clubs; youth groups; religious organizations; environmental and conservation groups; college and university people; national corporations and local industrial and business firms.

The mass media have helped, also. Perhaps the greatest contribution has been the Xerox Corporation's three-part television series: "Mission: Possible," aired in prime time on the American Broadcasting Corporation television network on April 24, May 7, and May 20, 1970. At the end of each program the booklet was shown and viewers were urged to write for a copy, compliments of Xerox. The response: requests from over 18,000 people, including many for multiple copies. To date, Xerox has given out to the public more than 24,000 complimentary copies of the guide.

The Corporation for Public Broadcasting has acquired the rights to the three "Mission: Possible" specials and is rebroadcasting them on 200 public television network stations across the country in March and April 1971. The programs were updated by the Public Broadcasting Environment Center and are being pre-

sented with the cooperation of the Committee, the National Audubon Society, and the Xerox Corporation. The guide is being publicized on each program, and the Committee is providing copies to viewers who write for them.

In an article in the April 21, 1970 issue of **Look** magazine, readers were asked to send to the Committee for a copy of the guide. The response resulted in the sale of over 7,000 booklets. The November 1970 issue of **Good Housekeeping** magazine carried a small item about the action guide in its letters-to-the-editor column. As a consequence, we have received requests for almost 1,800 booklets.

Numerous newspapers and other periodicals have reproduced excerpts from the guide. And this has not been confined to just the United States. Puerto Rico's "El Mundo" asked and received permission to print excerpts from the booklet and advertise its availability. Most recently we have received a request from the Brazilian Conservation Foundation to allow the guide's translation into Portuguese and republication in Brazil. In Canada, the Alberta Wildlife Foundation plans to print up to 100,000 copies of the guide with appropriate modifications for its use in that country.

Copies of the guide have also been made available to the public through the Superintendent of Documents, United States Government Printing Office (GPO) in Washington, D.C., at a cost of 60 cents each. The GPO allows a discount of 25 percent on orders in quantity of 100 guides or more, bringing the unit price down to 45 cents. The GPO has sold almost 15,000 copies, and has given 6,000 copies to depository libraries and Federal agencies.

The Committee has an inventory of approximately 43,800 copies; the Xerox Corporation has about 1,000; and some 100 copies are still available for sale by the GPO. As a result of the increasing demand for the guide, however, the Government Printing Office is now planning a third reprint.

The Committee plans to update and expand the guide with a view to an even larger distribution.

The building of a better environment will require in the long term a citizenry that is both deeply concerned and fully informed. Thus, I believe that our educational system, at all levels, has a critical role to play.

Richard Nixon

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PHOTOGRAPHIC CREDITS

The Committee is grateful to the many people and organizations offering photographs for use in this report. These include: on p. 2, the Bureau of Outdoor Recreation of the Department of Interior; on pp. 8, 11, 16, 26, 30 and 50, National Geographic Society; on p. 19, the Department of Housing and Urban Development; on pp. 24, 34 and 52, the Soil Conservation Service of the Department of Agriculture; on p. 43, The Louisville Times; on p. 41, the National Park Service of the Department of Interior; on pp. 38 and 55, Billy E. Barnes; and on p. 46, the Environmental Protection Agency.